

Figure 1(b)

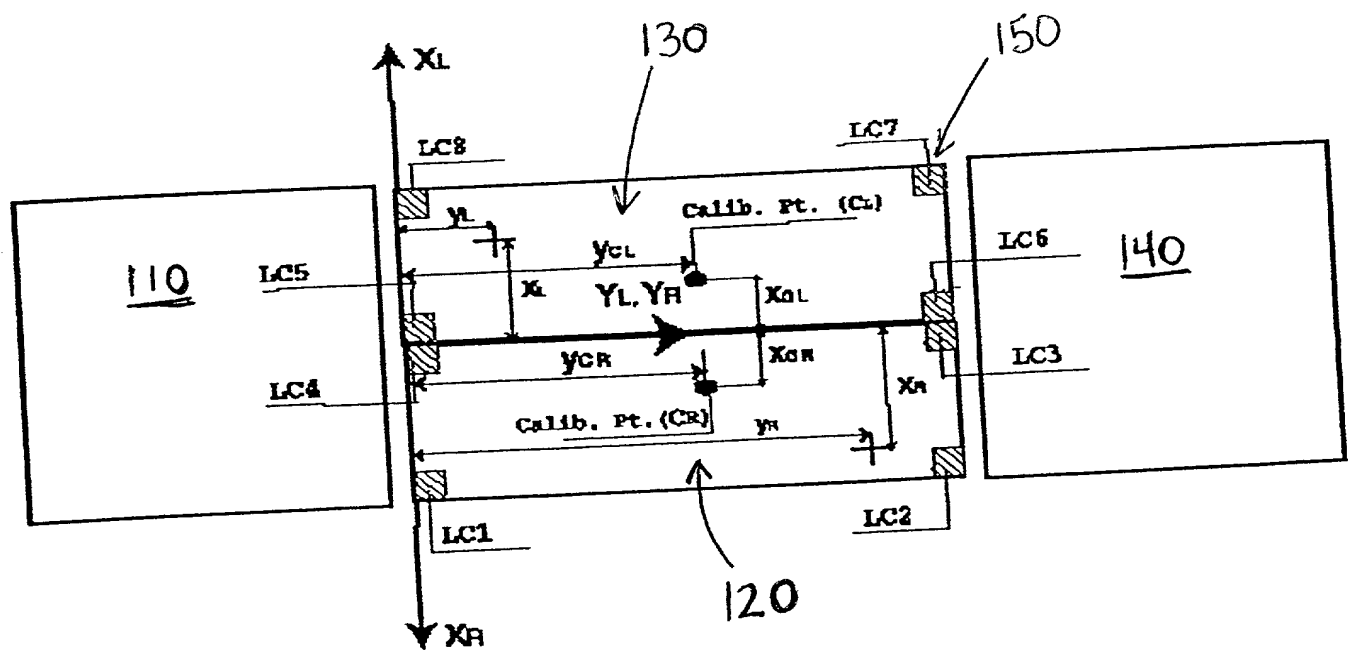


Figure 1(c)

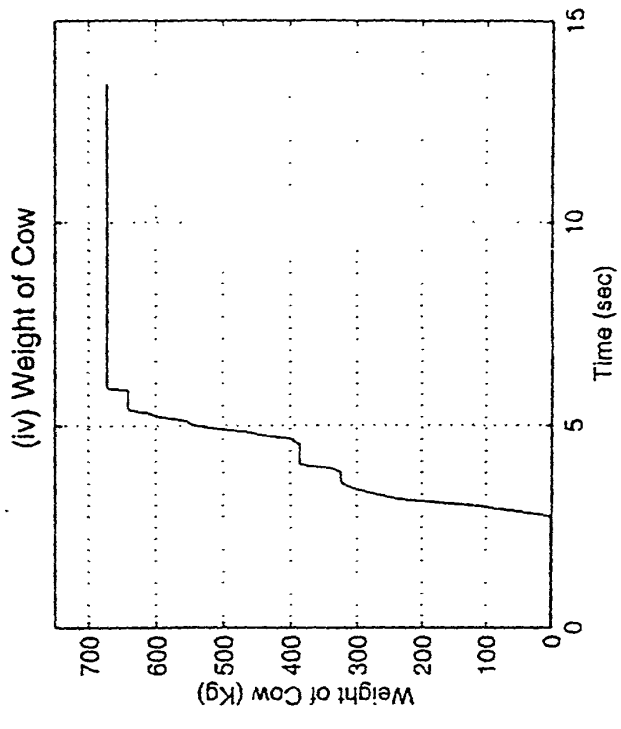
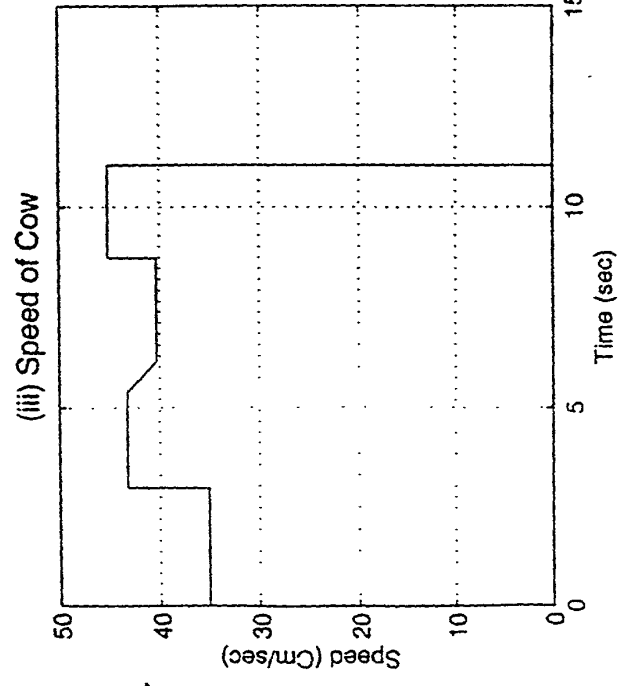
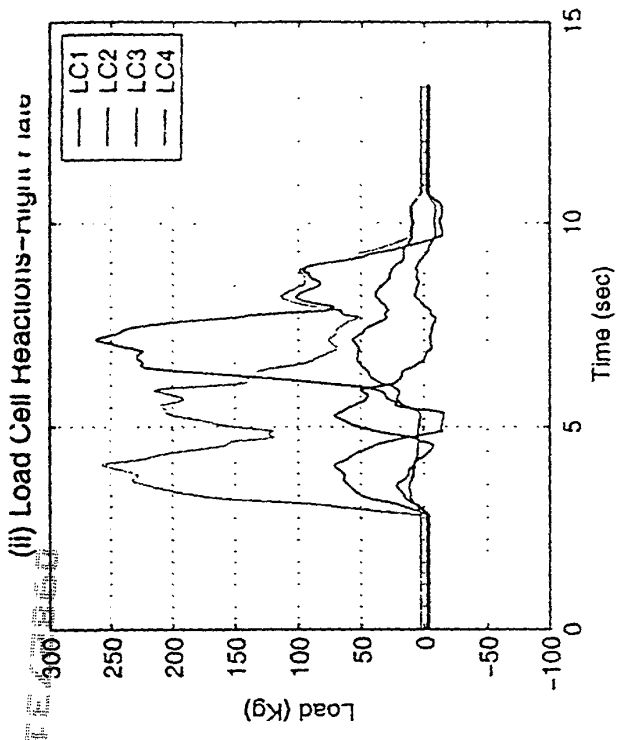
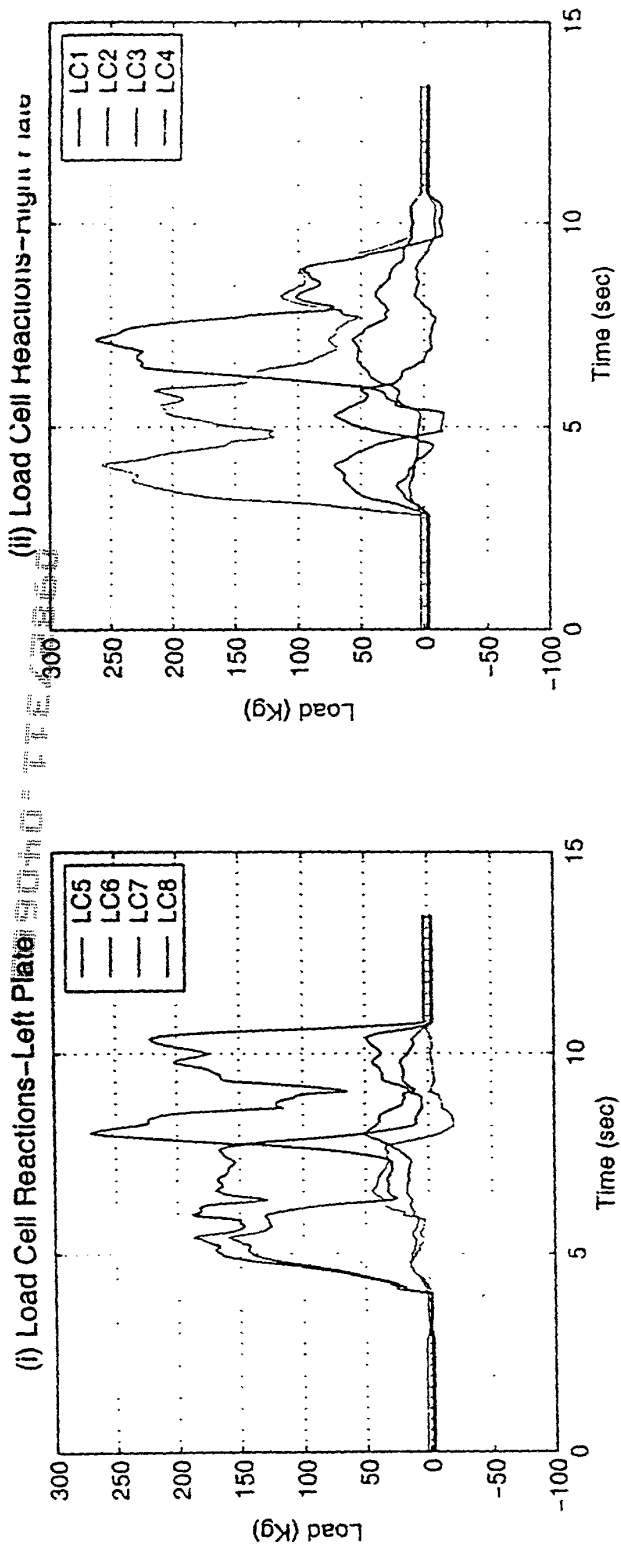
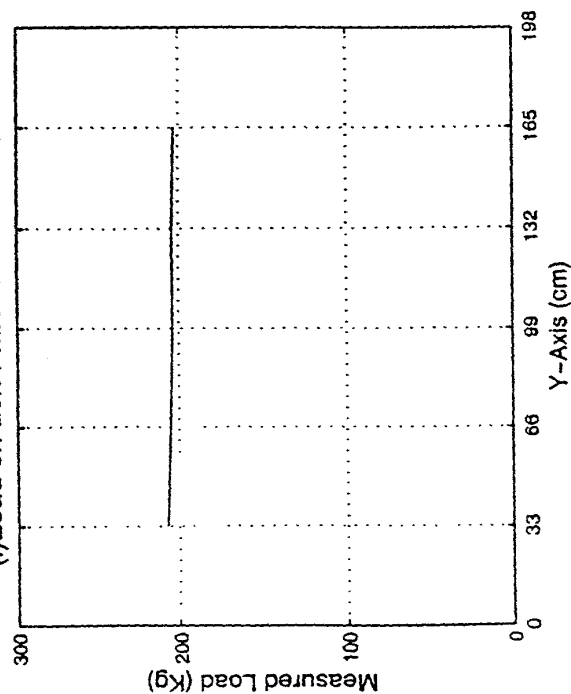
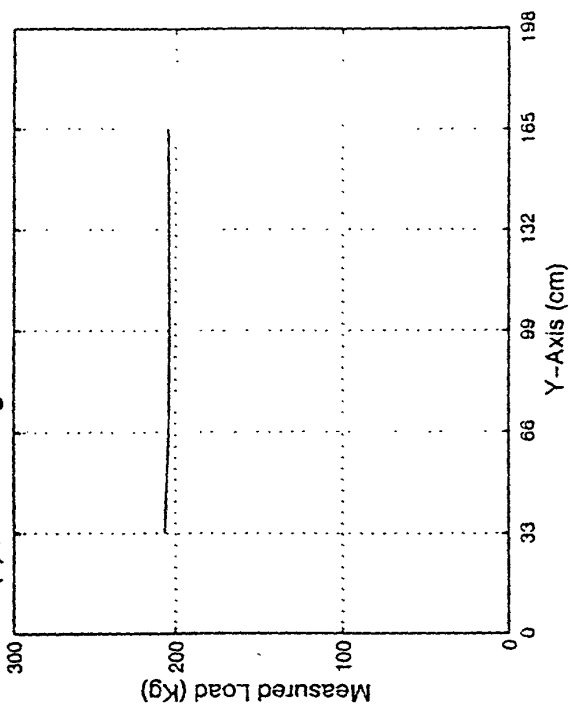
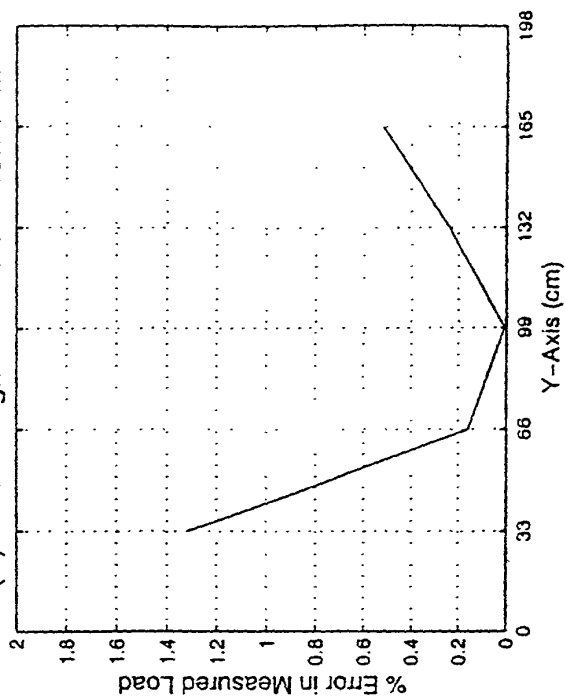


Figure 2

TO SOND THE 25 (ii) Load on Right Plate @ X = 18.74 cm



(iv) Load on Right Plate @ X = 18.74 cm



(iii) Load on Left Plate @ X = 18.74 cm

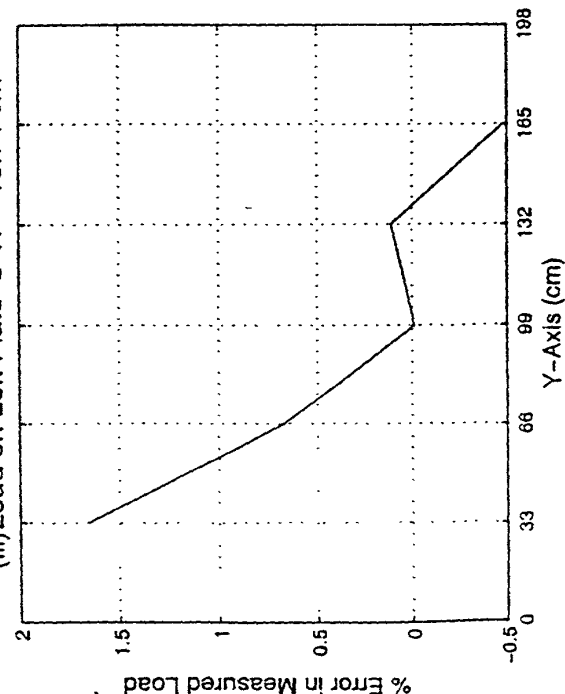
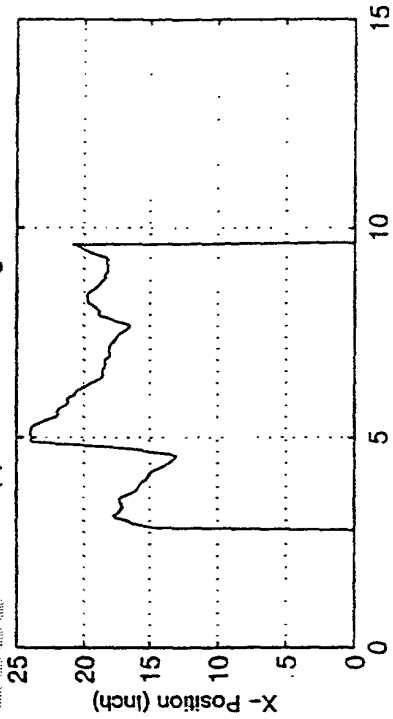
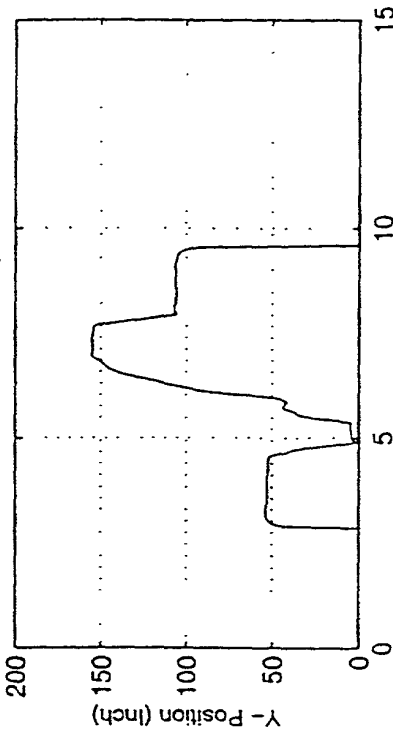


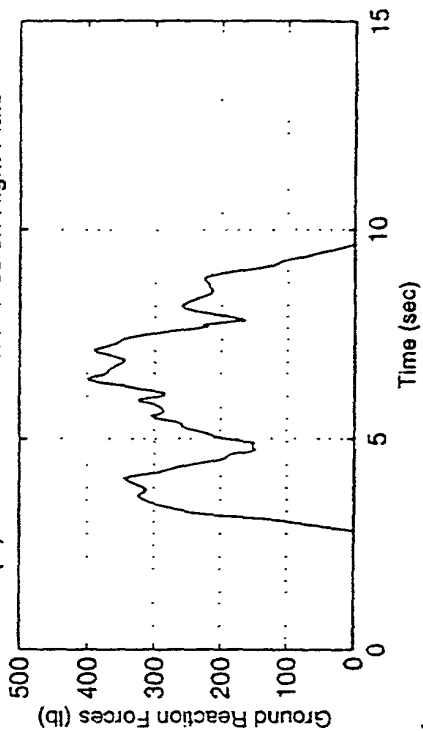
Figure 3



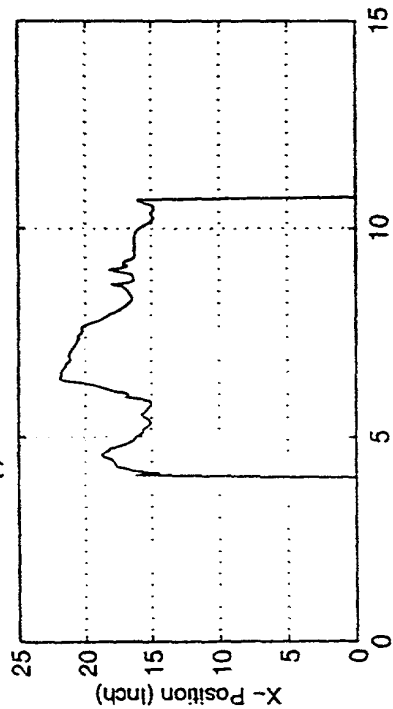
(iv) Y-Position on Right Plate



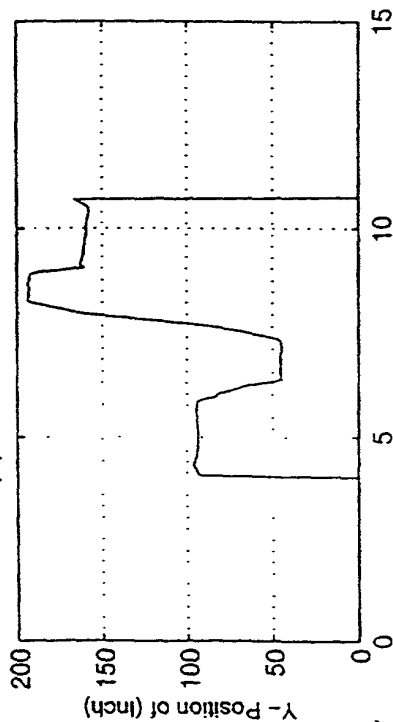
(vi) Ground Reaction Forces on Right Plate



(i) X-Position on Left Plate



(iii) Y-Position on Left Plate



(v) Ground Reaction Forces on Left Plate

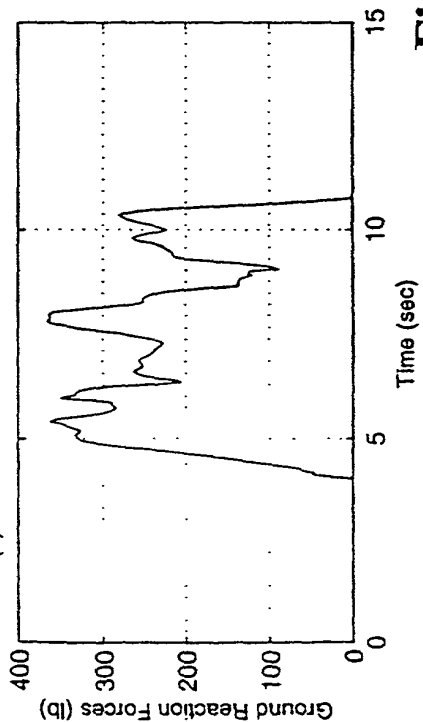
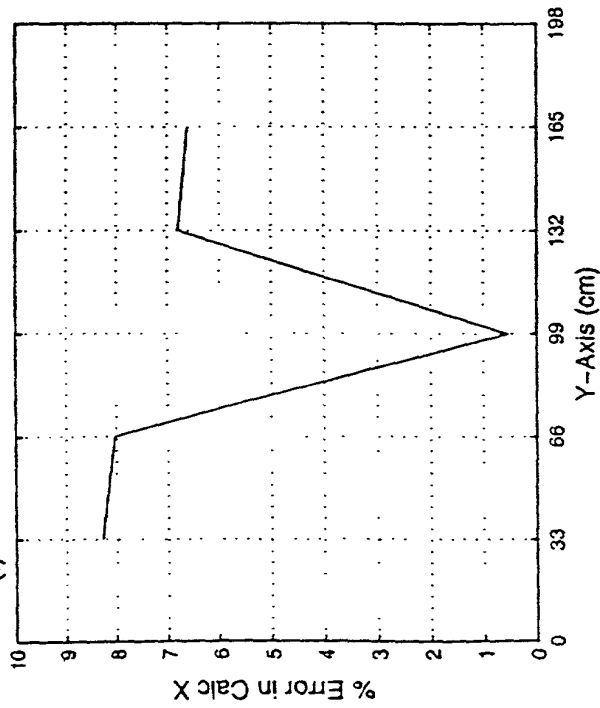
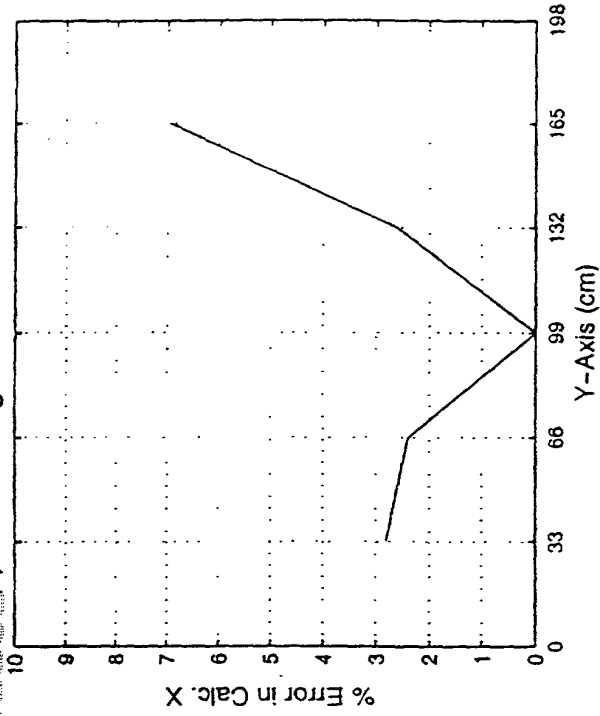


Figure 4

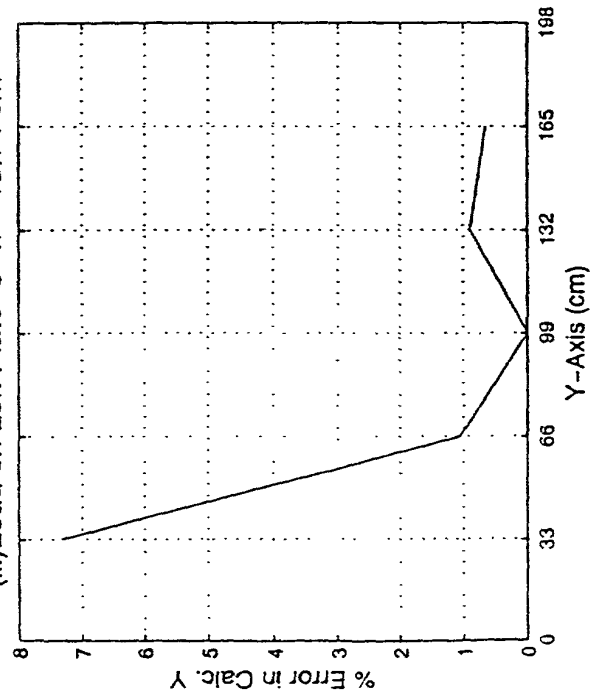
(i) Load on Left Plate @ $x = 18.74 \text{ cm}$



(ii) Load on Right Plate @ $x = 18.74 \text{ cm}$



(iii) Load on Left Plate @ $x = 18.74 \text{ cm}$



(iv) Load on Right Plate @ $x = 18.74 \text{ cm}$

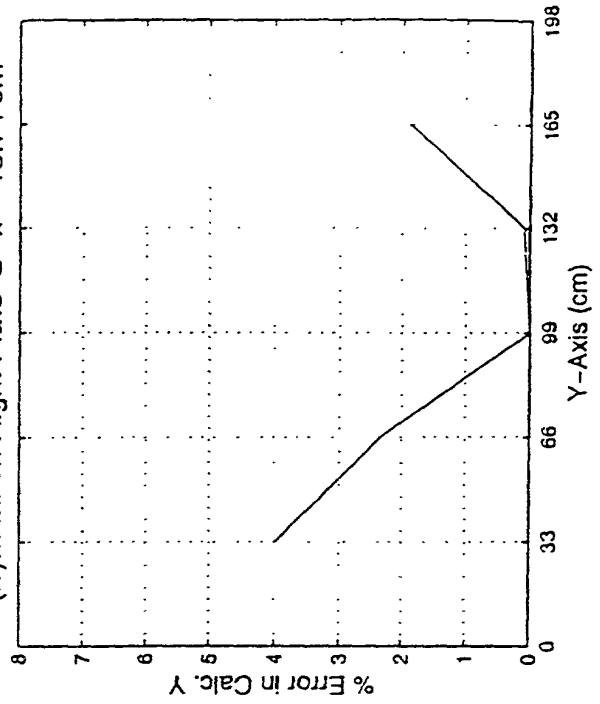


Figure 5

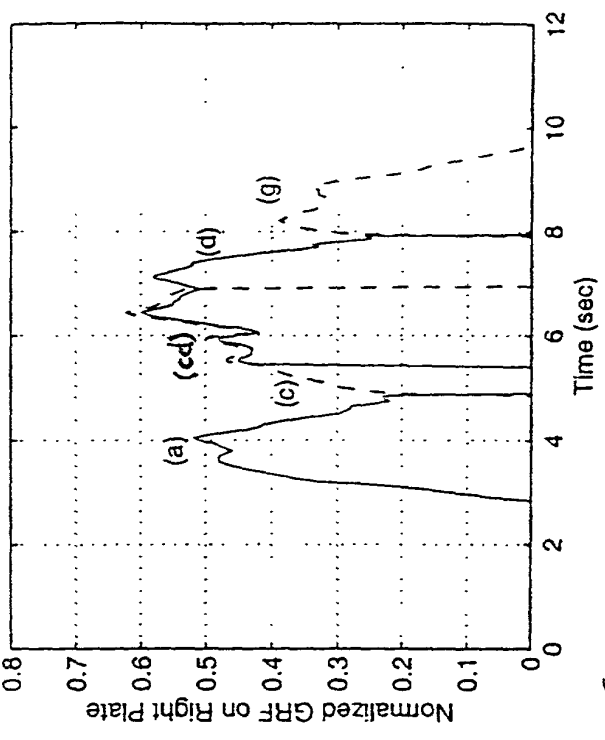
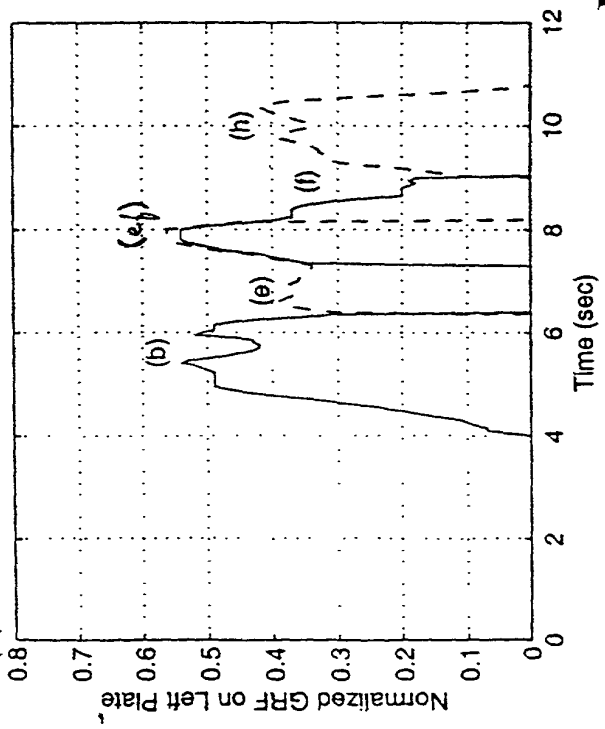
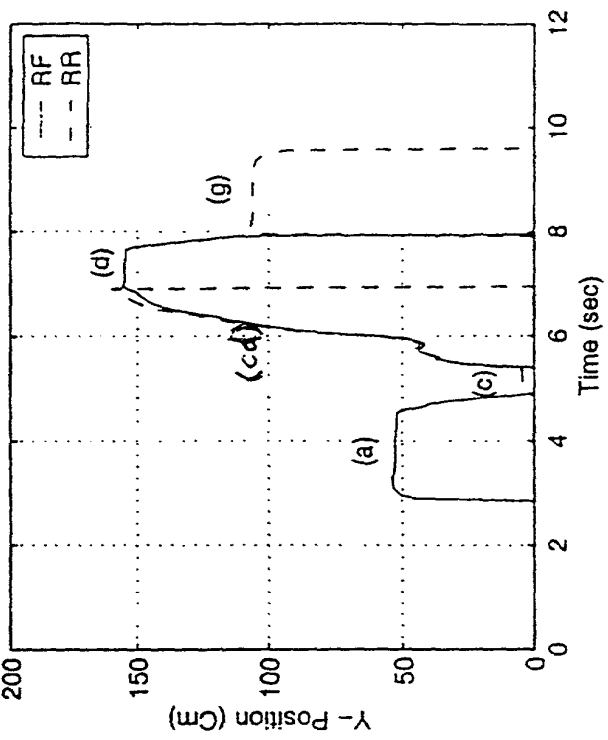
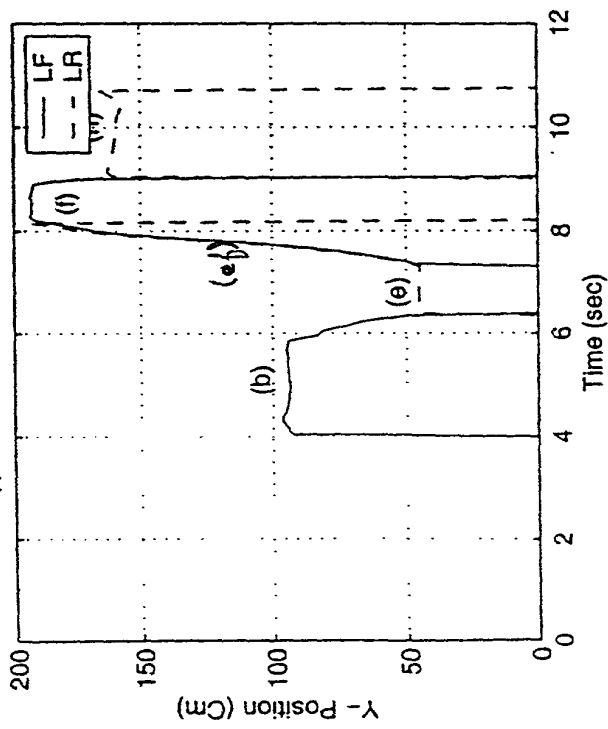


Figure 6

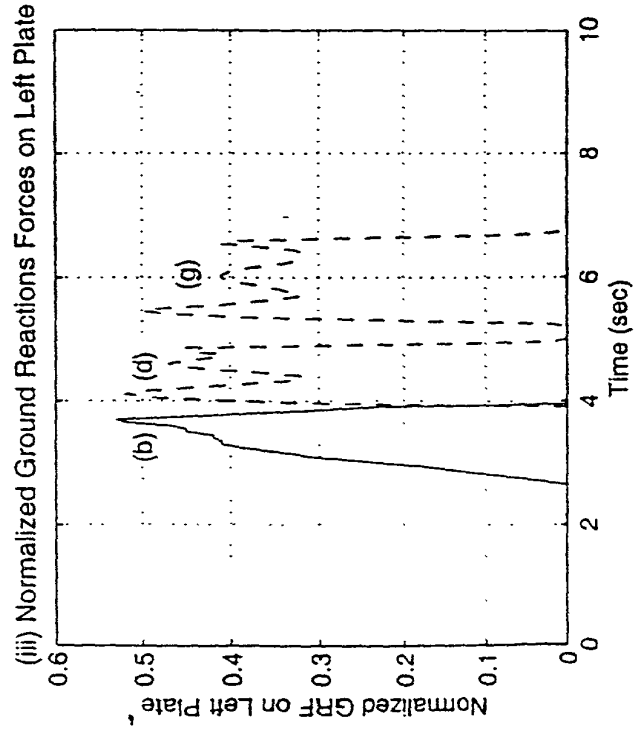
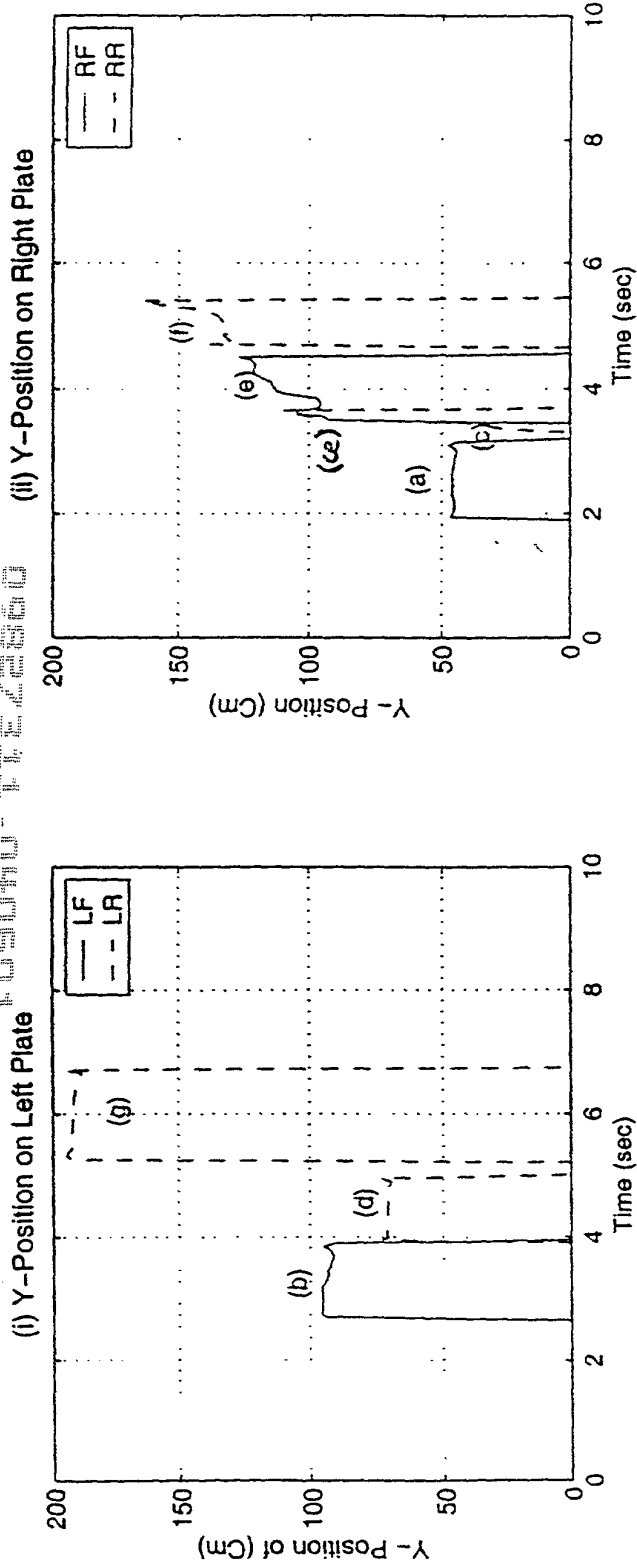


Figure 7

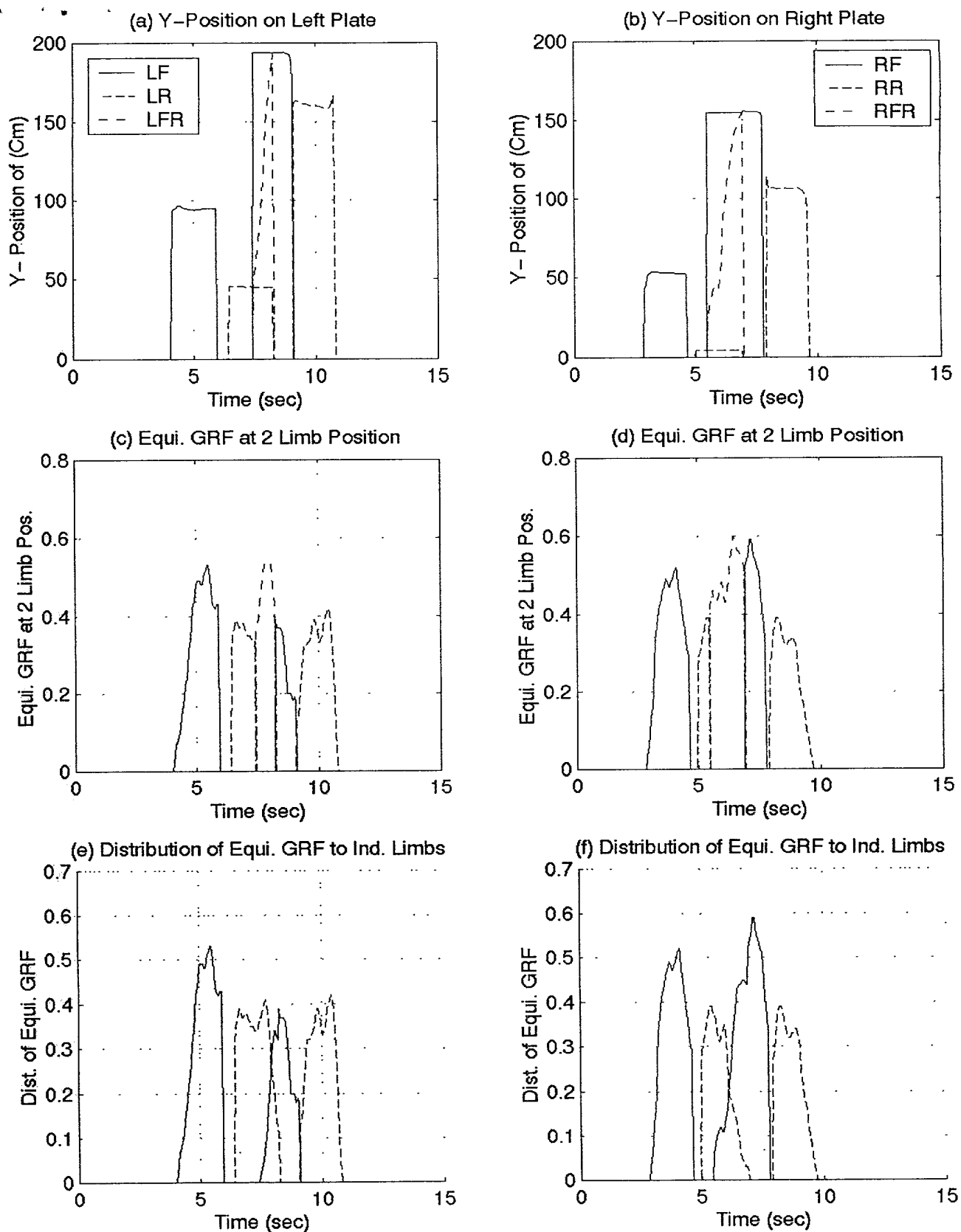
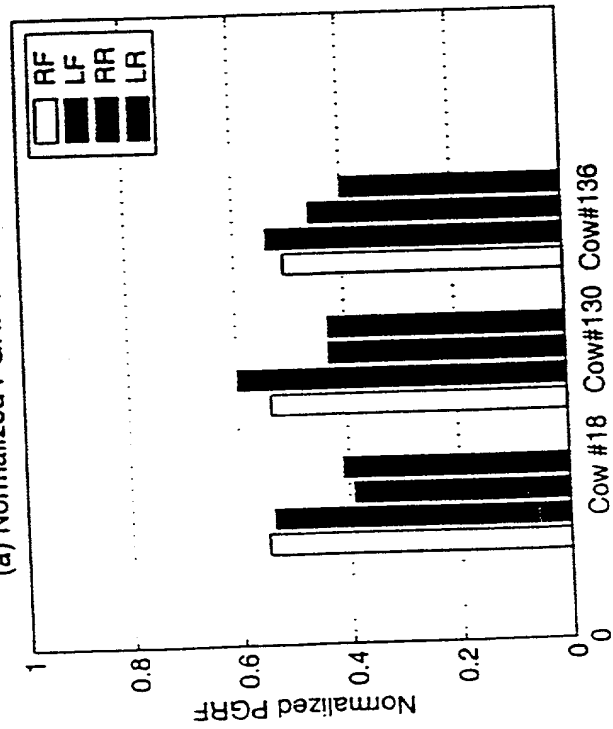
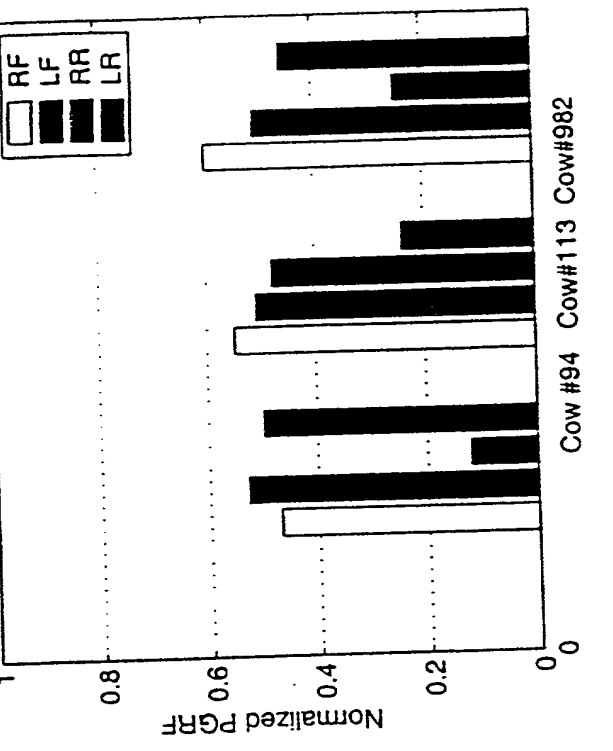


Figure 8

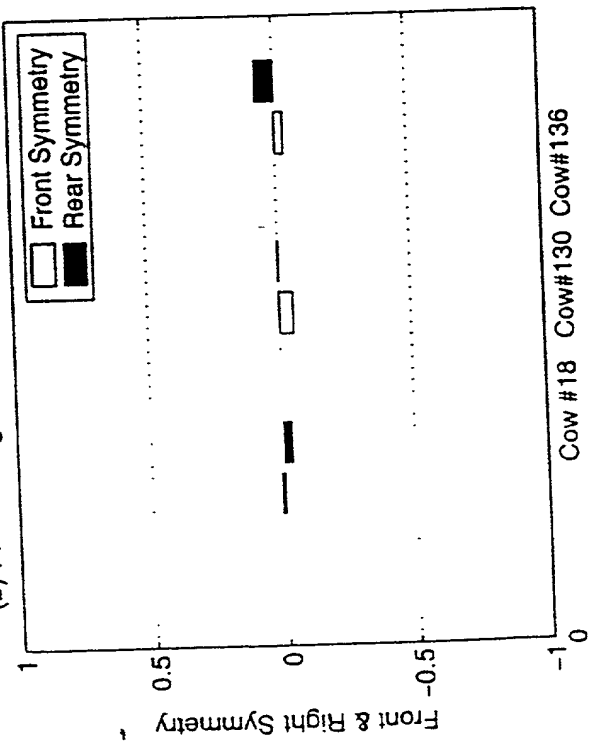
(a) Normalized PGHF for Sound Cows



(c) Normalized PGHF for Lame Cows



(b) Front & Right Symmetry for Sound Cows



(d) Front and Right Symmetry for Lame Cows

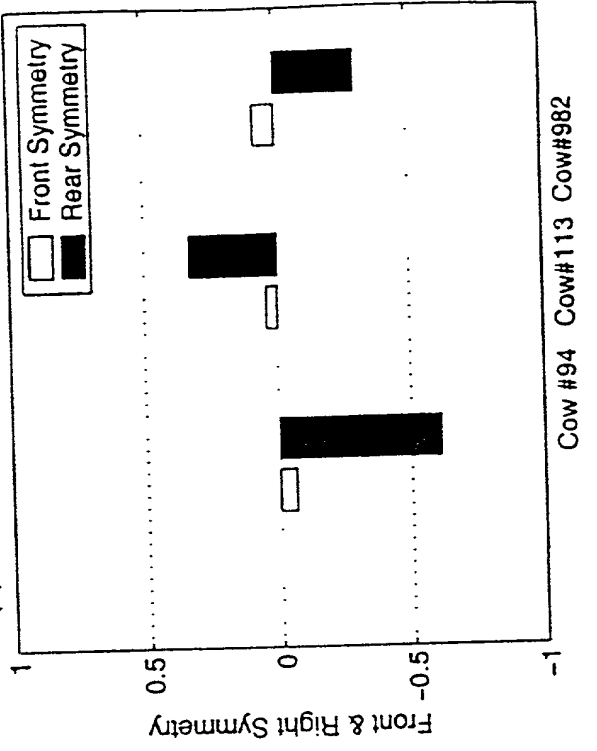


Figure 9

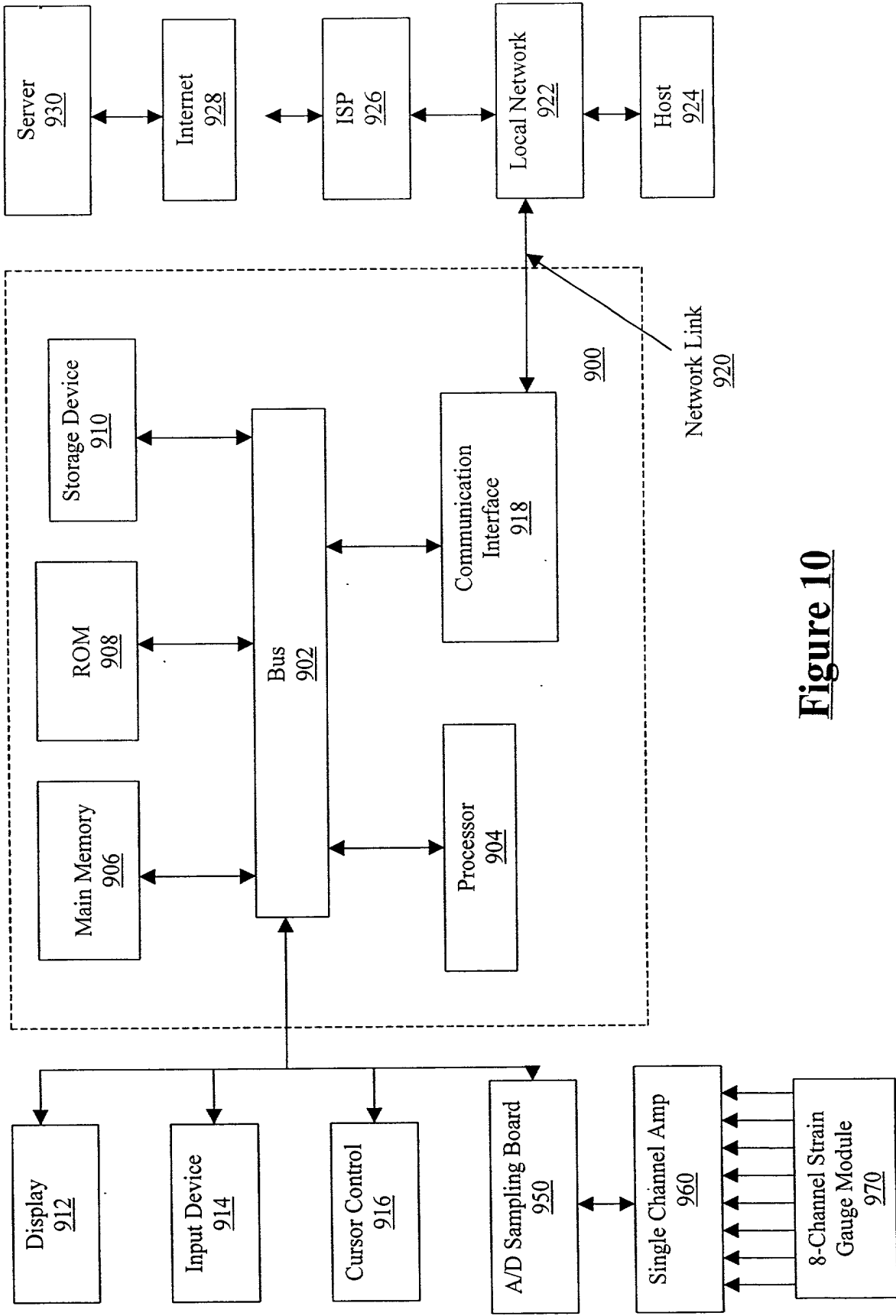


Figure 10

Limb movement variables of Individual Limbs of Sound Cows 973 and 984

Limb Movement Variables	Sound Cow 973				Sound Cow 984			
	Left Front [LF]	Right Front [RF]	Left Rear [LR]	Right Rear [RR]	Left Front [LF]	Right Front [RF]	Left Rear [LR]	Right Rear [RR]
Normalized PGRF	0.49	0.52	0.39	0.51	0.56	0.59	0.41	0.44
Stance time (sec)	1.00	0.89	1.00	0.97	1.11	1.10	0.92	1.10
Impulse (sec)	0.34	0.33	0.30	0.35	0.40	0.40	0.26	0.31
Normalized AGRF	0.34	0.37	0.30	0.36	0.36	0.36	0.28	0.29
Step size (cm)	NA	NA	NA	NA	NA	114	NA	117
Energy (1/sec)	0.47	0.47	0.37	0.40	0.54	0.55	0.41	0.35
P-energy (1/sec ²)	4.51	4.70	3.32	3.34	5.15	5.32	3.77	2.81

Figure 11

Limb movement variables of Individual Limbs of Lambe Cows 113 and 982

Limb Movement Variables	Lame Cow 113				Lame Cow 982			
	Left Front [LF]	Right Front [RF]	Left Rear [LR]	Right Rear [RR]	Left Front [LF]	Right Front [RF]	Left Rear [LR]	Right Rear [RR]
Normalized PGRF	0.47	0.53	0.19	0.41	0.55	0.57	0.36	0.27
Stance time (sec)	2.00	1.40	1.05	1.50	1.14	0.97	1.27	0.99
Impulse (sec)	0.67	0.44	0.11	0.53	0.40	0.35	0.33	0.16
Normalized AGRF	0.33	0.32	0.10	0.36	0.35	0.36	0.26	0.17
Step size (cm)	84	NA	117	NA	96	102	92	142
Energy (1/sec)	0.41	0.33	0.12	0.33	0.46	0.54	0.30	0.20
P-energy (1/sec ²)	3.74	1.44	1.04	2.20	4.50	5.14	2.55	1.40

Figure 12